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ABSTRACT

The two newsletter issues presented in this document contain articles with the following titles and authors: "'My Kids Could Never Do That': Adapting Software for the Learning Disabled Student" by Susan Jo Russell; "Enriching Science and Math Instruction with Technology: The Voyage of the Mimi" (about an integrated set of video, computer, and print materials for students in grades 4 through 8) by Laura Martin; "Word Processing for the Learning Disabled: Caveats" by Jed Luchow; "Teaching a Course to Teachers on the Use of Computers in the Learning Disabled Classroom" by Barbara Dubitsky and Bernice Wilson; "Vocational Planning for the LD Child" by Ellen Millman; "There's Got To Be an Angle--There's Got To Be a Way" (an interview with dyslexic artist Tobi Kahn); "Extra Weight: A Hero's Reflections" (reminiscences of a successful learning disabled man) by Jim Rein; "Lemonade Stands and Fleamarkets" (ways to encourage financial independence in learning disabled children) by Robert Whitman; "How a Born Again Dyslexic Found Pluslexia" (the necessity of acceptance of the pervasive differences characteristic of the dyslexic individual) by Delos Smith. (DB)

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Churchill Forum

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THE CHURCHILL CENTER FOR LEARNING DISABILITIES, INC.

VOL. IX NO. 1 DECEMBER 1986

"My Kids Could Never Do That": Adapting Software for the Learning Disabled Student

by Susan Jo Russell

NOTE: Please replace your December 1986 *Forum*, which has several unfortunate printer errors, with this corrected issue. Profound apologies to our contributors.

One of the earliest articles I remember reading about computers and special education was titled something like, "Adapting Software for Use in Special Education." The adaptation of "regular" software was, and continues to be, one of the first issues raised as special educators bring computers into their classrooms. At first, when much of the available educational software was not professionally produced, "adaptation" meant changing the program itself. It quickly became clear that most teachers were not about to become programmers in their spare time and that, even if they did, commercially produced educational software was carefully protected against any attempts to modify it directly.

Soon, "adaptation" came to refer to the use of options built into the software itself, such as variation in the level of difficulty or the speed of the activity. Usually, these options are accessible only to the teacher or are automatically chosen by the program; for example, level of difficulty may be adjusted depending on the performance of the student.

Such built-in variations in speed or level of difficulty are most often associated with software that is designed for drill and practice activities. As more flexible and complex computer applications—word processing, data bases, Logo, simulations—find their way into special education, another kind of "adaptation" is increasingly discussed. Every few weeks I get an inquiry or hear a discussion about questions such as, "what are the prerequisites for my learning disabled students to use the word processor?" While the technology is relatively new, adaptation in this sense is an old story. A friend of mine now in her thirties tells how, in her high school home economics class, no one was allowed to start on a sewing project until she could thread the sewing machine in less than a minute. Some girls spent all semester threading the machine. Even now there is a principle making the rounds of special education circles which states that students should not attempt word processing until they can type six gross words per minute. Steps, stages, sequences, and prerequisites designed to help students over hurdles become hurdles in themselves. For some students, the "pre"-requisite, that which comes before the essential, becomes the essential—not a route, but a barrier.

Credit: Bank Street Public Information

Peer collaboration allows students to use the best of their own abilities while learning from the strengths of others.

Whatever the *means* of adaptation—changing the program, selecting built-in options, or training students to master prerequisite skills—the *meaning* of adaptation for the learning disabled student is almost always the same: adaptation implies simplification. The software is too fast, too complicated, too difficult: "my kids could never do *that*." The less familiar the software in content and goals and the fewer its internal restrictions, the more certain we are that this software must be "adapted" before the learning disabled child can use it.

Software *is* sometimes difficult, confusing, even misleading. Sometimes it should be discarded as inappropriate, poorly conceived, or of doubtful pedagogical value. But sometimes, although a piece of software is worthwhile and stimulating, learning to use it, like learning to use other worthwhile tools, requires overcoming mechanical, or even conceptual hurdles which may pose special problems for students with learning problems. For instance, a learning disabled 9-year-old, using what we thought was a provocative, but straightforward, piece of problem-solving software, was confused by two different uses of arrows which the software required. The arrows on the keyboard were used to move the cursor around the screen, while arrow symbols which appeared on the screen could be selected as answers to problems. This system led to situations in which, for example, the child had to use the right-arrow *key* to move the cursor in order to select an up-arrow *symbol*. For this child, these mechanics proved confusing and prevented her from focusing on the content of the problems.

Accounts from special education teachers who have tried to implement non-drill uses of the computer with their students indicate that they have thought carefully about the issue of adaptation—and have found many ways to adapt the learning situation for their students without sacrificing content or appropriate complexity. A synthesis of cases gathered from teachers of learning disabled students points to four ways in which the issues of adaptation can be addressed:

Overcoming hurdles. A teacher who uses a complex detective investigation simulation with her seventh grade learning disabled students found they had difficulty with some of the mechanics of the program, such as controlling the simulated car. They especially had trouble thinking ahead in order to press the command to stop the car in time (before it crashed against the curb). She set aside time for them to practice these mechan-

(continued on p. 4)

Enriching Science and Math Instruction with Technology: *The Voyage of the Mimi*

by Laura M.W. Martin

When it comes to learning science and mathematics, many of us feel at a disadvantage. Exciting early experiences with science and math are difficult to arrange for teachers and students alike. Recently, a program was created that uses classroom technologies to motivate children's interest in science and to help teachers link "concrete" experiences with abstract ideas. The designers were particularly concerned about the fact that girls, minority students, and handicapped students are disproportionately discouraged from taking an interest in technical subjects.

With backing from the Federal Government and CBS/Holt, Rinehart & Winston, Sam Gibbon and his colleagues at Bank Street College created an integrated set of video, computer, and print materials for science and mathematics in grades 4 through 8, called *The Voyage of the Mimi*. During the development process, research provided feedback on the attractiveness and comprehensibility of the materials.

With the knowledge that television can bring the world into a classroom in a powerful way for this age group, that a strong narrative helps people remember events, and that role modeling is a powerful instructional device, the designers centered *The Voyage of the Mimi* around a 13-part television drama. The story concerns two young scientists and their teenage assistants who charter a boat (The *Mimi*) to study humpback whales. The characters present non-stereotypic role models of scientists; for instance, one of the assistants is a deaf woman who studies whale songs through vibrations and sound spectrographs. In the course of their scientific investigations, the crew, including the captain and his ten year old grandson, encounters numerous situations that require the application of problem-solving, technical skill, and teamwork. Ethical dilemmas and the team members' personal lives are entwined with the scientific and technical aspects of the story.

Bridging the elements of the drama to actual science projects are 13 documentary videos in which one of the *Mimi* actors visits a real laboratory or worksite of a scientist. The topics of the documentaries relate to topics in the drama, as in a visit to the weather station at the top of Mt. Washington.

The *Mimi* children's book recounts the material covered in the video portions in textual prose form. The book and a teacher's manual suggest classroom activities that elaborate concepts touched upon in the show and cover additional factual information.

Voyage of the *Mimi*: a program that uses classroom technologies to link concrete experiences with abstract ideas.

With the *Mimi*, too, the children can conduct scientific investigations and measurements or can use simulated instruments in adult ways. Microcomputer-based activities let children use navigation instruments and learn latitude and longitude while playing rescue games; measure and graph heat, temperature, light, and sound in their own environment using a probe that attaches to the computer; try to "survive" for a year on an island without disturbing the balance of the island's ecosystem; and learn programming commands and features by directing the course of a boat or a turtle. Books that accompany the computer units cover facts and activities about navigation, ecosystems, programming, and properties of matter.

Visiting schools nationwide, we have found *The Voyage of the Mimi* strongly motivates children who have trouble with traditionally structured school activities because of problematic conceptual or perceptual skills. While the materials provide a very rich environment of ideas, it is nonetheless a contained universe, with more reiteration than the everyday world. Rather than overwhelming the child who has academic problems, it seems to facilitate connections between concepts, activities, meanings, and outcomes. With guidance on how to integrate the materials into the class, teachers are able to make use of the important pedagogical features of the materials to kindle and maintain the questions and excitement children express as they explore the complexities of the natural world.

First, the story line provides a context for children to visualize why and how science and math are important as well as to ask their own questions about the world. The thematic connections that the *Mimi* raises between science, math, and, say, social studies also support a realistic view of scientific enterprise. Second, the materials present and elaborate the same topics in a variety of modalities: visual/graphic, visual/textual, auditory, sensory-motor, giving children more information channels than usual with which to work. Third, the materials support teachers' abilities to encourage students' curiosity. Because the materials do not dictate a prescribed sequence of units or topics, but rather, raise many possibilities, classes can pursue topics according to their own inclinations (and curriculum requirements).

District 21 in Brooklyn, which introduced the *Mimi* in six special education classes at the 6th and 7th grade levels, found that children would do reading on computer screens that they otherwise would not do, according to the district Magnet Grant Coordinator, Arline Geller. Geller reported too, that the video strongly supported text reading in those classes. "Every sense is touched and everything is reinforced. You read it, you see it, you hear it, and do it hands-on. Another plus is that it is developmental: you can master one skill and go on to the next."

(continued on page 3)

Martin, continued

At the same time, playing the games is motivating, although some of the games are too advanced . . . But the *Mimi* was used judiciously, introduced gradually." This district is recommending it for use in all Special Education Classes at the middle school level. "I've seen nothing like it, especially for Special Ed," said Geller.

Many teachers with whom I talked expressed the fact that this multi-media program has "something for everyone" — student and teacher. Throughout the nation, children became deeply involved in the themes of the *Mimi*. They engaged in independent research, searched for resource materials, watched nature shows and became "somehow more aware," as one parent put it, of science issues. The issue of communication raised in conjunction with the deaf character, for instance, created a great deal of interest among regular and Special Education classes in extra reading and discussions. In a large Midwest district, a junior high teacher found the materials very helpful for involving her "slow" readers. Many teachers commented that the materials helped heterogeneous ability individuals work together on a topic. Similarly, a remedial classroom teacher in the South felt this program helped her to discover new learning potential in the students. A private school teacher of very low achievers felt the program to be highly engaging, both because of its inherent appeal and because the children could tackle science and problem-solving easily and immediately. A teacher in the West said that the model of the crew fostered cooperative work among special needs students, who generally worked individually. Finally, several teachers commented on how important it was for the self-image of their special needs students to study the same curriculum as others at their grade level; the *Mimi* allowed them to do precisely that.

The *Mimi* has resulted in lively, invigorated science programs; in people making connections between abstract and concrete ideas in new, easy ways; in people viewing math and science in broader ways than they had in the past. Schools have been helped to integrate computers into the regular curriculum and to coordinate curriculum efforts among specialty teachers, including the computer lab teacher. In addition, teachers have experienced new success as instructors so that they now are studying more science and math, and changing their scheduling to provide more time on these subjects for their students. ■

Word Processing for the Learning Disabled: Caveats

by Jed P. Luchow

> Unsubstantiated contentions abound, not the least of which are unqualified claims of the wonders of word processing . . . While there appear to be considerable benefits of integrating word processing into the composition instruction of persons with learning disabilities (Degnan & Hummel, 1985), the research to support such claims is still emerging (Hummel, 1985).

Although much heralded in the current literature in special education, the use of word processing to aid the writing of learning disabled students does not appear to have as wealthy a data base to support such exuberance at the present time. Collins and Price (1986), in describing the Learning Disabled College Writers Project at the University of Minnesota General College, note the current lack of empirical research validating the positive effects of integrating word processing with composition. The authors present eight student testimonials in order to provide "uninterpreted insight" into both the positive and the inhibitive aspects of microcomputer word processing when used to accommodate students' learning disabilities.

Writing Problems

For the learning disabled student, writing problems are often prevalent and difficult to remediate because proficiency in this area relies on an expanded experiential base and the development of adequate listening, speaking, and reading skills. Compared with nonhandicapped peers, learning disabled students often write at a slower pace, show poorer organization skills, possess a more limited vocabulary, and exhibit a higher frequency of mechanical errors, including spelling, capitalization, and punctuation. According to Deshler (1978), learning disabled students are less competent at monitoring their own writing errors.

Computer As Word Processor

Computers have been used in the educational setting for decades, but their use was largely confined to science, mathematics, and technical areas. Use in instruction was restricted due to relatively limited availability and high cost. The advent of the silicon chip in the early 1970's brought a reduction in cost and complexity of computers commensurate with the reduction in size. This has resulted in bringing computers, in the form of microcomputers, into more general use in education.

The field of special education was alerted to the challenge of technology by the Council for Exceptional Children's Division for Technology and Media for the Handicapped when Cain (1984) wrote:

> The importance of developing new instructional strategies which fully use and teach about technology is more than a desirable program enhancement. Current and future technologies hold the potential to be normalization agents for the exceptional person both in school and in the community . . .

The technology of word processing, then, allows the user to type copy on a screen, review the writing, revise the writing, get hard copy (on paper from a printer), store the writing (on a cassette or diskette), and return to the microcomputer at a later date. In word processing, major revising can be accomplished on the visual screen, while the hard copy is produced automatically by the printer.

Writing and Computers: A Study

Following the research of Deshler (1978) on the writing disabilities of learning disabled high school students, a study was conducted to explore the efficacy of word processing with twenty learning disabled college students. The purpose of the study was to determine if a group of learning disabled students, given the opportunity to learn word processing, could produce higher scores on a writing sample than those learning disabled students who produced a similar writing sample using traditional paper and pencil. Using the technique of holistic scoring, the results indicated that there was no difference in the writing samples of the two groups.

However, one must not be too quick to abandon this technology without a close scrutiny of some of the non-data based observations of the subjects from the

(continued, p. 6)

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Note: Our readers will be interested to know that *The Voyage of the Mimi* is aired regularly on public television. Check with your local station for listings.

Russell, continued

ics and, to a chorus of "oops" and "oh, no, not again," they gradually learned to manage them. Rather than turning such hurdles into prerequisites, teachers can cooperate with students in helping them over hurdles which they all recognize—in response to, not in anticipation of, their need.

Collaboration. In life, we often do not manage every aspect of a task by ourselves. Peer collaboration allows students to use the best of their own abilities while learning from the strengths of others. One teacher, for example, groups students for work with problem-solving software by pairing a student with severe reading problems, but average skills in approaching new problems, with a better reader with poorer reasoning skills. In a small study of teachers using word processing with their learning disabled students, it was found *all* were using some form of peer collaboration.

Choosing goals and interventions. perhaps the most important form of adaptation is the way the teacher interacts with the student. As one teacher put it, "I hang around a lot [when students are using the computer], tossing in ideas, suggesting strategies, and helping if someone is stymied." But what is the nature of this help, and how does it vary from child to child? Choosing when and how to intervene is a difficult task which requires clarity about educational goals for each student. For example, a teacher's goal for one student in her class, a child who is often paralyzed by making choices, is to get him to risk employing a trial-and-error strategy when confronting an unfamiliar problem. For another student in the same class, the teacher's goal is to help her develop strategies other than trial and error such as systematically changing one variable while holding others constant. The teacher may have both students use a piece of software which requires them to make and test hypotheses about cause and effect, but her interventions, based on these different educational goals, will be quite different.

Making your own. To come full circle, back to the very first sense of "adaptation" in this article, teachers are, in fact, making their own software tools. By starting with a programming language, often Logo, or the new computer "languages" of data bases and spreadsheets, teachers create templates—structures within which their students can explore a particular set of ideas. One teacher of mathematics at a school for learning disabled students guides her third through sixth graders in writing Logo programs for learning fraction concepts, while a high school teacher sets up electronic spreadsheets to help his learning disabled students with estimation and calculation. Because these are tools which are accessible for use by students as well as teachers, the students take over more and more of the actual construction of Logo program or spreadsheet as their skills and confidence increase. "Someday," one teacher jokes, "you'll be able to recognize the learning disabled student in the grocery store by the hand-calculator-sized electronic spreadsheet he carries."

It is interesting for those of us who teach learning disabled students to pay attention to the sense of "adaptation" as it is used in work with physically handicapped individuals. An "adaptive device" which, for instance, enables a child with little or no use of her hands to gain access to the computer simplifies only the means of interacting, but not the substance of the interaction. An adaptation in this sense is a mediator which facilitates a meeting between child and intellectual content. What is difficult is differentiating adaptation which changes either student or content from adaptation which, as Webster defines it, "brings one into correspondence with another." ■

Susan Jo Russell is Co-Director of Curriculum and Evaluation at Technical Education Research Centers (TERC) in Cambridge, MA. Since leaving classroom teaching, she has worked in the area of special education and technology, first with the M.I.T. Educational Computing Group, then at TERC, where she currently directs the project, "Beyond Drill and Practice: Using Microcomputers in Special Education." This article describes, in part, the work of this project, which has been gathering and synthesizing information from practice under a grand funded by Special Education Programs, U.S. Department of Education. A handbook for teachers based on this collection of cases is forthcoming. For more information or further references, write TERC, 1696 Massachusetts Avenue, Cambridge, MA 02138.

Thanks especially to Temple Ary, Mickey Brandmeyer, Jan Mokros, Jan Schraith, and Steve Spencer for cases drawn on for this article. Software used in the cases cited includes *Agent U.S.A., Logo, PFS File, The Pond,* and *Snooper Troops.*

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Teaching A Course To Teachers On The Use Of Computers in the Learning Disabled Classroom

by Barbara Dubitsky and Bernice Wilson

We, as educators of educators, have seen the introduction of technology as an opportunity for rekindling our exploration of basic issues and questions about teaching and learning. The questions remain the same: What is a good teacher? How do you help someone be a good teacher? What are the esential elements in a productive teaching/learning situation? How does a good teacher select and use tools and materials most effectively for his/her students? These questions apply no matter who the student is and no matter what the tools are.

Our theory has been that in order to teach others, one must be aware of one's own learning processes. If you fail to understand how you learn, you may be impelled to teach the way you were taught or the way you yourself best learn. Understanding the way you learn will sensitize you to the wide varieties of learning methods and styles of different people. Without such understanding, people often fall into the trap of thinking that "there is a right way to teach."

We fashioned a 12-hour weekend course and then a full semester course at Bank Street College in New York City based on the premise stated above. An essential ingredient in these courses was that the participants kept individual logs as they learned to use the computer in a variety of ways. Each student was asked to learn two or more uses of the computer new to them from among the following: a word processor; a data base; a spread sheet; a computer language; and a speech synthesizer. Our students were predominantly experienced teachers, about half in special education; but many had no experience with the computer at all. Of these, most had a clear case of computer-phobia.

We had a dual purpose: 1) for the students to learn to use the computer; and 2) to use the experience to learn something about the *way* they learn. Our goal was not to make them masters of the computer. We were aware that their experience would be just a beginning. Our goal did involve, however, the achievement of a deep understanding by the student of his/her own learning style. The vehicles for self exploration were the logs, discussions, and a synthesizing paper.

We began with a discussion of what students thought they knew about their own learning and then broke periodically for sharing and exploration. Many themes evolved. The students were amazed at what they learned or re-learned about themselves. Additionally, although the theme of learning disabilities was woven into every discussion, all of us realized that the special notice we should take of a learning disabled child is the same as we should take about any learner, ourselves and our colleagues included.

Our students were obliged to teach a new computer skill to someone else who had a different learning style. They were astonished at how difficult and frustrating this experience could be. They understood cognitively what to do, but found the doing difficult. Fast moving students complained about their more studied and reflective "pupils." Talkers complained about non-talkers. Students tried to resist the temptation of pushing their pupils' hands away from the keyboard in their enthusiasm to demonstrate something. Some students froze when they had to teach techniques which they had not perfected themselves; others reveled in the excitement of the newness. All these factors had a major impact on their pupils' progress.

The synthesizing papers revealed the depth of understanding generated from the multiple experiences of learning, teaching others, keeping a log and group discussions. The view of learning style was expanded from the cliches of special education: "visual-motor, auditory cognitive, kinesthetic whatevers" to a broader understanding of the paths and barriers to learning. These understandings didn't come out in erudite terminology but in simple deeply felt statements:

> You know, as I sit here writing this, I've allowed myself to get up several times (I am a restless learner) and I'm wondering to myself, how often do I, despite my special education training, try to keep children in their seats and working, when perhaps their needs for shorter spans of time at-task are just as great as mine?
>
> It was wonderful to have a partner to turn to when I didn't understand.

But another student said:

> I don't like to work with another person, it makes me too anxious. I need time for reflecting alone about what I have learned.
>
> I approached computers with fear and even hostility until I was given time and space to reframe the problem as I saw it and to reach my own solutions at my own pace. When that happened, I was elated and I felt in control of the tool. It even caused a shift in my perception of myself. But it could so easily have happened the other way. I might have given up before I began if those small successes with Logo had not been so tempting.
>
> . . . Finally I gave up working on the computer. It's fair to give my partner a turn, but I would have loved to spend more time on the keyboard. "Taking turns" is like a tabu word for some children. I can see my son's face every time I remind him that: "Tienes que esperar tu turno, Pablo."

We have tried to extract some of the reasons that these two courses yielded experiences so rich for everyone. Naturally, one of our main purposes in giving the courses was to learn more about the computer in special education. But now that we have given the course three times, we are concerned that we might fall into a formalized pattern of instruction.

We trust that as teachers become facile with computers, when they feel they "know the material," they will not feel they simply must impart it to others.

(continued, p. 7)

Credit: Bank Street Public Information

The very uncertainties surrounding computer instruction can be an important impetus to good teaching.

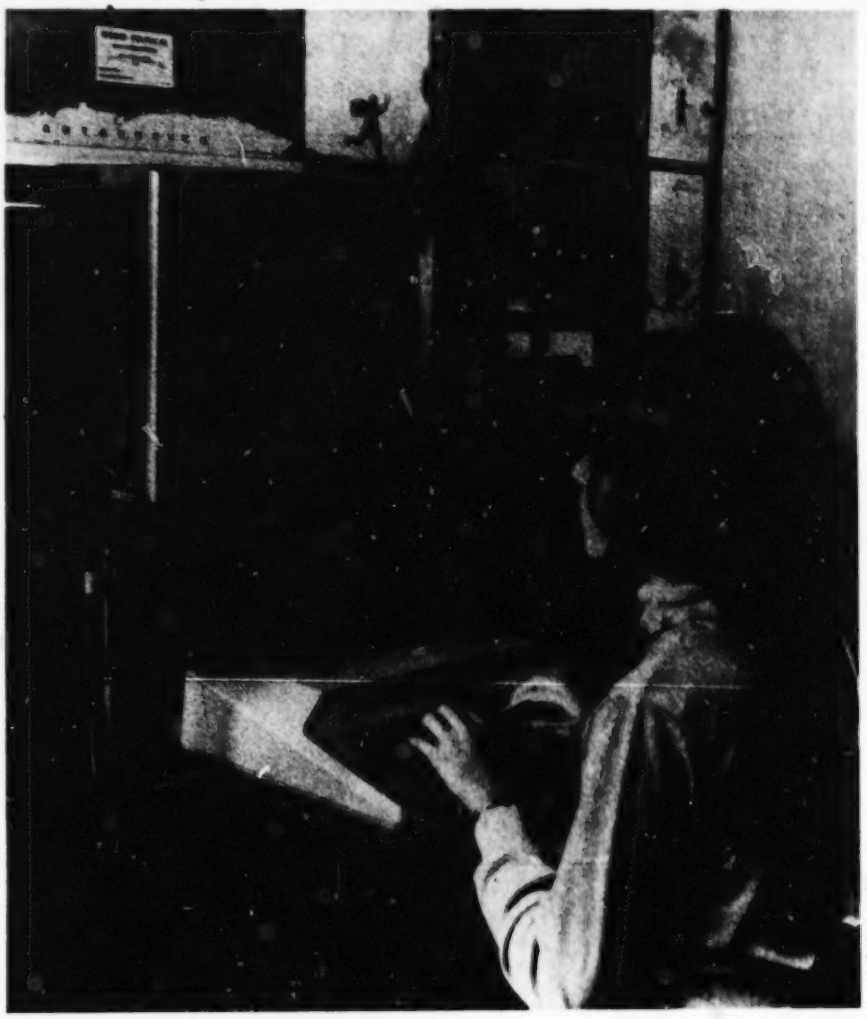
Luchow, continued

study. For example, if one considers that handwriting is often a problem for the learning disabled student with visual-motor difficulties, then one must wonder how that same individual would be able to manage the keyboard on the microcomputer. In fact, many of the students were not only unfamiliar with the keyboard, but they also stated that they had never had any formal instruction in typing. One student with particularly poor coordination discovered that if she let her finger remain too long on a single key the letter repeated itself across the entire page. This was not as big a problem, however, as when she was unable to release the DELETE key quickly enough; this resulted in her unhappy discovery that she would unintentionally erase an entire line or more!

Another observation focused on the word processing program itself and the difficulty with which the learning disabled student was able to become fluent with a wide range of commands. When a student needed additional assistance and was referred to the manufacturer's manual, it was clear that this tool was not prepared for a user with any type of reading problem. Moreover, in many cases, manufacturers' word processor manuals can only be interpreted by skilled experts who have considerable experience with computers.

An interesting aside from the specific observations on the writing process was the general attitude of many of the students towards the technology. Some students were anxious to learn word processing with the expectation of being able to produce both a more effective and a more attractive piece of work. Other students were skeptical about their ability to master the technology and in many cases a drop off in attendance as well as excessive latenesses were noted. A pattern described in the LD literature as "learned helplessness" seemed to emerge during the training (Luchow, et al., 1985).

Finally, in studying the quality of the actual writing samples, this study confirmed several previous studies reported in the early 1980s by Bridwell. In one set of studies, Bridwell examined the writing of one hundred randomly selected twelfth graders who were assigned a paper and were further required to submit a first draft, a revision, and a final draft. Both the first and the final draft were rated on overall quality. The design of the study allowed Bridwell to separate and review the changes made when the first draft was being written, when it was reread on the second day, and when the second draft was being written. Most of the revisions at all three stages were changes in spelling, punctuation, and word choice. The poorer writers either recopied their first drafts with very few revisions or revised extensively but only at the surface or word level.



Credit: John McGrail

We have an obligation to students and their teachers to do more than make bold promises about the efficacy of technology.

Even though the study with the twenty learning disabled students employed the microcomputer as a word processor, the results were similar to those of Bridwell (1980). When corrections were made on the writing samples, the corrections were almost always in spelling, punctuation, and word choice. Rarely was the capacity of the microprocessor used to revise substantive sections of an essay for new thoughts or ideas.

Some Considerations

It appears, then, that although the current literature favors the use of word processing, many issues need further exploration. For example, to what extent do learning disabled students need to become familiar with both the keyboard of the computer and functional typing skills? Do learning disabled students need specific instruction in order to learn to use effectively the word processing program itself? Should the text of manufacturers' manuals be modified for the learning disabled student with a reading disability? Does it matter which word processing program is selected for use with the learning disabled student? (It was noted in the study reported that a version of the word processing program used on the IBM-PC required the student to shift between two modes, WRITE and EDIT, while the same word processing program on the APPLE required a shift among three modes, WRITE, EDIT, and TRANSFER). And, finally, is word processing an end in itself for the disabled writer, or must word processing be an integral part of the very process of the act of writing (composing, revising, and editing) and presented in that manner?

(continued, p. 7)

Luchow, continued

Conclusion

To answer the question posed in the title, "Word Processing for the Learning Disabled: Does it Work?," we would like to suggest that the jury is still out. In calling attention to these and other concerns about word processing and writing, it is not our purpose to suggest that this form of technology will not be of great assistance to learning disabled and other special education students, as is currently described in the literature. Rather, we have an obligation to these students and their teachers to do more than make bold promises about the efficacy of technology. We need to demonstrate, with clear evidence, that specific instructional techniques will enhance the likelihood of successful results, which we believe can be achieved! ■

Jed P. Luchow (Ed. D) is the Coordinator of the Program in Special Education at The College of Staten Island, City University of New York. He is currently the President of the New York Federation of the Council for Exceptional Children and serves on the Executive Board of the national CEC's Division for Learning Disabilities.

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A word of explanation

Because of budget constraints, the *Churchill Forum* will be published only twice this year, in November 1986 and March 1987. It is our hope that the full four-issue series will be available in the 1987-1988 academic year.

Dubitsky & Wilson, continued

Hopefully they will not design standard (dare we say boring?) computer-based curricula which, unhappily, evolve into a growing stockpile of too familiar, even tedious, course materials. Under such circumstances, what Alfred North Whitehead referred to as "mental dryrot" sets in. "Burnout" of both students and teachers is at least partially related to this process.

We have learned through the process of teaching computer courses to teachers that the very uncertainties surrounding computer instruction can be an important impetus to good teaching. It is precisely the lack of sureness of knowing exactly what one is doing that frees the teacher to ask students questions and to encourage them to help one another. Curiosity and excitement in learning are increased and barriers to learning are overcome.

We are hopeful that the experience of learning about computers will have an impact on classrooms and teachers which will far outweigh the basic amassing of technological information about computers that necessarily takes place during such a course. As one of our students stated in her paper regarding the use of computers in the classroom, "relationships can change not only among children, but between children and teacher—I see a microcosm in this class of how teacher colleagues can learn to cooperate among themselves and finally with their students." ■

PROJECT HEROES UPDATE

The new *Project Heroes* Manual is now available through the Churchill Center (212-722-0465). This new *Live* Heroes Manual focuses on interviewing contemporary heroes—people with learning disabilities who are leading successful and meaningful lives. (See *Churchill Forum*, October 1984, Vol. VII, No. 1)

Do you have suggestions of articles you would like to see appear in the **Forum?** If so, please let us know.

The **Churchill Forum** would be pleased to consider manuscripts dealing with topics in the field of learning disabilities. Manuscripts should be double-spaced and not exceed 1200 words. Receipt of manuscripts will be acknowledged. Unaccepted manuscripts will be returned only at the writer's request. Send manuscripts and/or abstracts to: Editor, The Churchill Forum, 22 E. 95th Street, New York, N.Y. 10128.

Barbara Dubitsky is Chair of Computer Programs at Bank Street College. She has worked in many areas concerning computers including the design of software, the education of the Bank Street faculty and staff, research, their use with children with different kinds of handicapping conditions. Dr. Dubitsky worked for many years as a math specialist and a classroom teacher.

Bernice Wilson is a member of the senior faculty at Bank Street College and a consultant for the special education department in the Mamaroneck School System. She has published numerous articles on learning disabilities and is the co-author of the book, A Professional's Guide to Working with the Special Education Child.

The Churchill Forum, published quarterly, disseminates the thinking and research of professionals working in the area of learning disabilities both at Churchill and elsewhere. Your tax deductible contribution, which will help us to continue this essential service, will be most welcome. Please mail to:

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Credit: Norm Ivers

ANNOUNCEMENT

The Board of Trustees of the Churchill School and Center for Learning Disabilities are delighted to announce that they have recently purchased a new building behind the current location. This addition will more than double our existing space and will allow us to:

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Dear Reader:

The Churchill Forum, never to be thought of as "behind the times," proudly presents this issue on Technology and the Learning Disabled Child. Four professionals in the field share their considerable experience and expertise on the challenges which the computer age presents to those interested in the field of education for the learning disabled child. Not the least of these challenges is the necessity for the adaptation of computer programs to meet the needs of exceptional children and the introduction of specific instructional techniques which will strengthen the likelihood of their success.

Harry Valentine III

Harry Valentine
Founder
The Churchill School

TECHNOLOGY AND EDUCATION FOR THE LEARNING DISABLED

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Churchill Forum

THE CHURCHILL CENTER FOR LEARNING DISABILITIES, INC.

VOL. IX NO. 2 MAY 1987

Vocational Planning for the LD Child

by Ellen Millman

Vocational planning conjures up different considerations from all who play a role in the process:

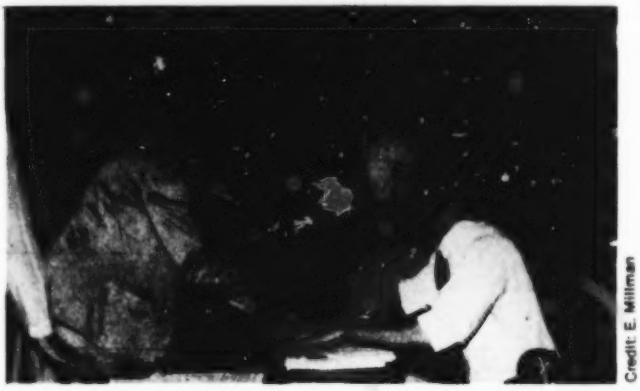
The Student: — I'm not sure what I like and I'm not sure what I can do.
— How can I make a decision now about what I will do for the rest of my life?

The Parent: — I want to help my youngster as much as possible but I also want him to become a self-reliant adult.
— What careers suited to my youngster's abilities offer the greatest security and the brightest economic opportunities?

The School: — He needs to learn decision-making skills.
— What educational experiences are needed that will offer exposure to the breadth of myriad career options?

The Professional Counselor:
— She needs to learn how to gather information about her abilities, her interests, and the labor market; how to analyze this information; and how to formulate realisitic vocational goals.
— What experience will ignite her energy and motivate her to pursue her vocational goals?

Vocational planning, then, evokes twinges of self-doubt, sentimentality, and responsibility while promoting curiosity, the search for opportunity, and value of independence. Rather than a dry fill-in-the-blank lock step procedure, vocational planning is an ever-evolving process filled with emotions, experimentation, exploration, success, failure, thinking and rethinking. The process does have an orderly development that helps to organize decisions and actions, but the process can be endlessly circular and spiraling as planning responds to feelings and reactions to new information and experiences.



Credit: E. Millman

A high school student/parent Career Exploration Program for LD students.

Vocational planning usually begins in earnest when a student is in high school. During the next few years of vocational planning activities, the student will need to be guided and supported by the school, professional counselors, and, first and foremost, by his or her parents. Utimately, it is hoped that, as students grow to adulthood, they will learn the necessary steps of the process and internalize the motivation and the mechanisms for continuing the exploration and planning process.

Throughout the student's life a file should be maintained at home which documents the details of educational and vocational experiences. As with any chronology, specific information on the student's educational history should be gathered. Included should be a complete account of the student's disability noting the diagnosis, diagnostic test dates and results, and recommendations for treatment. Also noted should be a record of special training and treatment and their effect. Documentation of educational achievement and the school's Individualized Educational Plan should be kept. It is sometimes helpful to compare academic performance and plans from year to year with attention to patterns and progress. It is most important to bring any observable trends to the immediate attention of school personnel so that appropriate adjustments can be made in the student's instruction.

Recording Students' Vocational History

A student's vocational history is often unlikely to be recorded. Yet, it can be especially useful in helping the student recall and reflect upon his knowledge of the world of work and his preferences. Schools increasingly incorporate vocational discussions and activities into the academic curriculum and, with more subtlety, continually review work habits, attitudes, and behaviors. Any strong reactions that the youngster has to these school activities should also be slipped into "the file." We all certainly try our best to acknowledge and respond to a student's interests. Attending to the task of recording reactions can heighten our awareness to preferences and, perhaps, spark reinforcing activities.

A student should maintain very specific accounts of all volunteer, work/study, part-time and summer work experiences. It is all too common that a student is unable to remember the details of dates, employers, job titles and duties that happened "so long ago." ("Long ago" calculated in student time seems to be approximately a year!) A student should be encouraged to ask employers for letters of recommendation which should, of course, be retained in the portfolio. These records are uniquely helpful in substantiating a student's maturity and motivation for future employers.

Continued, page 4

There's Got To Be An Angle—There's Got To Be A Way

by Tobi Kahn

NOTE: THE FOLLOWING IS AN INTERVIEW BETWEEN MR. TOBI KAHN, AN ARTIST WHO HAS HAD DIFFICULTIES WITH DYSLEXIA, AND MS. CLAIRE WURTZEL, CURRICULUM COORDINATOR FOR THE CHURCHILL SCHOOL FOR LEARNING DISABILITIES AND DIRECTOR OF THE "PROJECT HEROES" PROGRAM AT THE CHURCHILL SCHOOL IN NEW YORK.

C: One of the things those of us in the field of learning disabilities have discovered about children with learning problems is that some of them, as they move towards adulthood and careers, move with their natural strengths and others move into areas that are more difficult for them.

T: I'm not sure it's a question of natural and unnatural strengths. I think there are two approaches to consider when you meet a problem: either you work around the problem or go straight through the problem and then forget about it.

C: What do you mean "go straight through the problem?"

T: I think that whatever you want to do, you should do, and that your learning disability should have absolutely nothing to do with what you want. Nothing. I believe that more and more and more.

C: I think it's very interesting that some people in life go with their strengths—go with what's easy for them. Others sort of enjoy climbing the mountain. And it's not always the getting there, it's the way up that means something. Where do you fit in? Did you fight through your difficulties or move forward with your strengths?

T: Well, with respect to strengths, I think totally visually and spatially. My wife thinks in different ways. She'll ask me a question in math and I'll tell her the answer instinctively. She'll go step by step through the problem to come up with the same answer. I notice that when we play tic-tac-toe, I'll win after one move. I see the whole game spatially. She's a writer and an editor. She's a great thinker. She thinks through language. I don't think that way at all. For me it's a waste of time.

C: For you, it's a waste of time because it's not natural.

T: Right. As I get older I realize the benefits I have from my way of thinking.

C: But back to my question. Do you think you move with your natural strengths—or with your weaknesses?

T: I did get a Master's degree, and I graduated with my B.A. *summa cum laude*—Kappa Pi—which meant I had to take courses that weren't art history. I remember the first time I lectured at Elizabeth Seton College. I had 30 people sitting in the first row and I had 12 pages of notes. Everything was very neat. But I wouldn't look down at my notes for fear I would misread something, even though I hadn't had a problem reading since I was in high school. I've learned from that. I've prepared notes for this morning's lecture, but I know I'm never going to look at them. But in the act of writing them down, I memorized them. So do I go with my strengths? Yes. But do I not speak publicly just because I can't remember dates and numbers? Not at all. I find that I think more interestingly because I can't use my notes as a crutch. I speak spontaneously, and it makes my speaking more alive.

Credit: J. Neuhauser

Artist Tobi Kahn in his studio.

C: But you're able to memorize information that is really important or meaningful to you.

T: Exactly. I can remember things about art. My art dealer can't believe how much I know about art. But I can't remember street names—or people's names. So to get back to your point, I believe in going straight through. I don't believe in going around something; I believe in going straight through.

C: I agree, but to a point. Some children could no doubt follow your advice; others, those whose weaknesses are more serious, need to be provided with alternatives. Even though Dad's a broker, mother's a banker—they don't necessarily have to follow that line.

T: Yes, but a child, even one with a learning disability, should know that if he or she really wants to be a Wall Street broker, he or she can be. Someone's blind and wants to learn to paint—there's got to be a way.

C: But within one's limitations?

T: Exactly.

C: When you were a youngster, what was the thing that was most difficult for you?

T: Spelling was a disaster and reading was horrible. Reading and spelling were two terrible things. Math was great. I did fantastically in math.

C: Yes, I can imagine, because you have the spatial ability necessary to visualize math problems. But you couldn't *read* the math problems.

T: That's it. So when I had tests, I had the teachers read to me. I always did well but if I'd done it on my own, it would have been impossible. I was having such a hard time reading that I couldn't understand the problems, and by the time I got to the fourth sentence, it was like—forget it—what's going on? So I see reading and writing as the enemy. But I don't see myself necessarily evading the enemy; I want to win over the enemy. I'm so glad my wife is a writer. That means when I have kids, they might inherit some of that ability. I want that for my kids. On the other hand, though, I'd be happy if one of my kids was dyslexic and I could give him the kind of help that I didn't get.

Continued, page 3

Kahn, continued

C: But we're finally acknowledging that there are many different kinds of intelligences.

T: Yes, but in this society, reading and writing is *it*. Visual intelligence is fine, artistic intelligence is fine, but the written word is still number one. Nothing, however, can convince me that knowing how to read is a measure of intelligence. I don't think a person should go through what I went through—but would I switch what I went through? Not in a million years. I'm very happy that I had a problem. I only wish it hadn't been that painful.

C: What was social life in high school like for you?

T: I had to convince the teacher not to kick me out of class. How are you going to do that if you're not charming and funny? I became the class clown. I couldn't read! Do you know what it means every week hearing, "All right, Kahn, your turn," and knowing you wouldn't be able to perform? I 'm sure to this day a lot of my teachers didn't know I was dyslexic. Best way out of spelling bees was to get kicked out of class. I found a way—did it for 12 years. I'm not talking weeks and months, I'm talking years. Long time. Horrible. That's how I learned to be "outgoing." It wasn't so much in my personality . . . I invented it.

C: How did you do academically in high school?

T: I was definitely in the lower one fifth of the class. I remember one thing especially: the Achievement Tests. My parents hired a tutor for—I think it was Biology—the tutor read me all the information, and I scored 640 on the test. I remember one of the teachers thought I'd cheated, but there was no one sitting near me who had done as well. I began to realize that I could make it if I could memorize.

C: What did you major in in college?

T: Well, my high school average was so low that I couldn't get into a decent college in the U.S., so I went on an overseas program to Israel. I'd listen to the lectures and whatever they'd say, I'd memorize it; it became a challenge. The first term, I got my first 'A' ever. I didn't get one A, I got all A's, except for one B, and I decided I would never again fail to get an A. I became addicted . . . it became a total obsession. I realized I couldn't have slept at night if I couldn't get A's even in things that I had to take.

C: You said earlier that you had a tutor every day; what was that like as a young kid?

T: I adored my tutor. She taught me how to read. I'll never forget that as long as I live. And I was lucky that my parents recognized the problem and were very supportive in helping me solve it. Let me tell you a funny story about my Bar Mitzvah. I had to learn everything by heart and then point to each word, even though I wasn't sure which word it was, because I still couldn't read Hebrew. At the time, my parents said to me, "Tobi, you should do only one section." I said, "Everybody's doing the whole thing, and I'm going to do the whole thing."

My best friend didn't even know until three years ago that I had a learning disability. I never wanted to tell him. He thought I didn't do well in school because I was playing around, going out with girls, wasn't studying. I wasn't studying because I couldn't study. I didn't know what the hell to study.

C: How did you get into the art world?

T: I've always done art. As a child it made me relax. Even now, when I'm very uptight, going to a museum, I feel at peace. When I make art, I feel totally at peace. I float. I vanish. And I love that world.

C: How about your writing—are you still a poor speller?

T: Terrible. But I'm going to have to learn how to write—maybe through talking. I'm an excellent speaker, so maybe people will tape what I'm saying, and then somebody will transcribe it, edit it, and I won't have to deal with the spelling and sentence construction. I'm just not—and never will be—strong in basic writing.

C: For you it's the technical skill of writing that's a problem; your thinking and organizational skills are fine.

T: Right, but I want to get my ideas down. My heroes: Klee, Picasso, Giacometti—all kept diaries, so I know I eventually will too, using the medium of tape and film.

C: It's interesting. There's been a change in you since we first met some seven years ago when you spoke to a group of children at Churchill. I think it has to do with your acceptance of your learning disability. At that time, you didn't openly admit that things were still difficult for you.

T: When I talked to the children, that was the very first time. It was very cathartic for me. I think it has a lot to do with my success. You say I am more accepting of my learning disabilities than before; other friends say I look so much happier since my marriage. It's probably all of them, but success doesn't hurt.

C: You think your success has allowed you to be more open?

T: Definitely. There's been nothing in my life I've wanted more. I want to be number one even though no one can ever be number one; besides, I don't even know what number one is. After ten years of work I'm doing really well; I'm in several museum shows this year. "Can't you enjoy what you have?" my dealer asks. I try, but then I want the next thing.

C: If there were a message that you could give to parents or kids who have similar problems to yours, what would that be?

T: Fight. I really believe that you should fight for whatever you want. Find a way to get around anything you want to do, but do it. Don't say "I can't do it." Find an angle. There's always an angle. As for parents, tell your kids, "You're going to make it; you're going to be great." My mother would tell my sister and me, "You are both brilliant. You are going to be major successes."

C: And you don't feel she just said that, but that she really believed it.

T: I don't even care anymore. I don't know if she believed it. But the years that I had to believe it, I believed it. I knew I wanted to do something. I used to say, "Think I'm going to make it as an artist, Ma?" And she'd say, "I don't know if you're going to make it as an artist, but you're going to make it." Even today, I've had major shows, and my paintings sell and I say, "So, Ma, you think I'm going to make it as an artist?" She says "You're going to make it." I say, "Ma, say as an artist." So she says, "Okay, as as artist." ■

TOBI KAHN is an artist, living in New York City. Mr. Kahn received his B.A. from Hunter College and his M.F.A. from Pratt Institute. He has had many solo shows as well as group shows throughout the country, and his work is included in the collections of the Guggenheim Museum and the Jewish Museum in New York City, the I.N.A. Museum in Philadelphia, as well as in many corporation collections in cities throughout the U.S. Tobi Kahn was a "Living Hero" at the Churchill School, New York City, in 1981.

The Churchill Forum, published quarterly, disseminates the thinking and research of professionals working in the area of learning disabilities both at Churchill and elsewhere. Your tax deductible contribution, which will help us to continue this essential service, will be most welcome. Please mail to:

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Millman, continued

Assessing Students' Abilities and Needs

Having reviewed the student's history, the next step in the vocational planning process is to assess the student's present educational and disability-related circumstances and to project special needs that must be addressed immediately or in the future.

In order to develop a viable vocational plan, a student must gain a sense of his or her own vocational interests, aptitudes, and skills. These are most readily explored by means of standardized testing coupled with counseling and a study of written information on careers. Usually until now, the student has assessed these interests and abilities within the contextual framework and performances in academic subjects. It can be a striking and often pleasing revelation for a student to discover that types and levels of functioning, and not disability, define the world of work assessments. Students also seem to enjoy the exploration of interests as they relate to work environments and concrete tasks rather than academic subject matter.

Some schools routinely administer vocational evaluations to students. Others provide this service upon special request or standardly refer students to specialized community resources. In order to identify organizations that offer vocational evaluation, recommendations or referrals should be sought from general social service organizations such as the Federation of Jewish Philanthropies or agencies that are known for work with a student's particular disability such as the Assocation for Neurologically Impaired Brain Injured Children (ANIBIC). Community agencies providing evaluation services can also be contacted directly. Listings of such organizations can be found throughout the country. In New York, a helpful resource is *The Source Book, Social and Health Services in the Greater New York Area* published by UNIPUB. The Yellow Pages telephone directory also often has listings.

There are many different kinds of vocational evaluations that attempt to assess work task and environment preferences, aptitudes, skills, and learning styles. The format of the evaluations also varies from traditional paper-pencil to standardized task performances designs. An example of the latter is the Ladder Assembly task of the *JEVS Work Sample System* which assesses a person's fine finger dexterity, manual and bi-manual dexterity, eye-hand coordination, form and spatial perception, the dexterous use of a tool, full body movement, and the ability to follow oral instructions. Descriptions of specific vocational tests can be found in numerous testing texts such as *D-MAP: Dunn Model for Assessment and Placement* published by the National Clearing House of Rehabilitation Training Materials.

The results of vocational evaluations generally point to vocational strengths, limitations, and career interest areas. There is a tremendous variety of literature on careers which guidance offices and libraries have. Reference books such as *The Guide for Occupational Exploration* and *The Dictionary of Occupational Titles,* both published by the U.S. Department of Labor, describe occupational clusters and specific job duties of particular occupations.

Exploring Opportunities

Now with some sense of vocational interest, abilities and needs, it comes time to explore opportunities. Of major consideration in career exploration are labor market trends and resulting career opportunities. Printed resources such as *The Occupational Outlook Handbook* published by the U.S. Department of Labor, the "Career Movement and Management Facts" ("CAM Reports") published semi-monthly by Priam Publications, Inc. of East Lansing, Michigan, and the "New York State Summary Information" reports discuss short and long term employment projections. By regularly reviewing newspaper "want ads," present labor market needs can be easily ascertained.

It is, naturally, important to investigate the educational and vocational training opportunities that can prepare a student for a future career. When exploring the suitability of these resources, one must keep in mind *three factors.*

1. The first is simply that the resource opportunity should be legitimately approved and accredited. Answers to standard questions such as entry requirements and process, costs and financial aid availability, goals of the program, and program results can confirm a federal and state approved curriculum, standardized selectivity and success in job placement. There are numerous educational and training programs in operation which are legitimate businesses but do not meet accreditation standards.

2. The second consideration when assessing a resource is the value of its offerings in light of known labor market information. For example, while programs for mechanical typewriter repair exist, mechanical typewriter repair trainees have dim prospects for lengthy careers in this new era of electronic machines.

3. The third and undoubtedly most pertinent concern is the educational, vocational, or social service program's match to the student's interests, abilities, and needs. In order to identify suitable programs, one can conduct the search by occupational area of interest, by disability or by specific needs. For example, a student might turn to the *American Trade School Directory* published by Croner Publications Inc. to identify a computer programming training school. Or, the student might contact The Higher Education and Handicapped Resource Center, a National Clearinghouse on Post-Secondary Education for Handicappd Individuals in Washington, D.C. to identify a computer programming school in keeping with her needs and interests. The student could also identify a suitable resource to help her to find and finance independent housing while she attends computer programming school by contacting organizations listed, for example, under the topic "Housing Counseling Information" in *The Source Book.*

Ultimately, the most effective way of exploring any resource is by visiting it. It is important to interview program staff and program participants, take a tour of the facilities, and make special note of the atmosphere. One picture, it is said, is worth a thousand words—and can quickly allay or confirm countless concerns.

With the gathering, analyzing, and interrelating of information about the student, labor market trends and resources, a vocational plan emerges. Specific viable long term goals can be identified and concrete short term steps toward these goals become evident. The goals and steps, written out in outline form, help to give the student a sense of clarity and direction. Recording the dates of step and goal achievements clearly denotes progress and lends a sense of satisfaction and achievement.

Issues continually do arise which delay, thwart or alter vocational plans. It is important to realize that these changes are common, expected, and, actually, reflect the dynamic aspect of human development and its ability to accommodate to changing environmental circumstances.

Following the steps of a plan is, in the end, somewhat of an experiment. Perhaps the analyses of the variables and their interplay have been properly predictable and perhaps not. Sometimes when plans do not seem to be working out, a sense of failure, frustration and confusion ensues. It may come as a surprise to learn that vocational development research indicates that most people will experience many such "failures" well into their mid-thirties as they try to hone in on exactly what suits their needs and interests and what does not. Vocational planning and development is a process that can be clarified and advanced by both positive and negative experiences.

Sometimes while striving to attain a vocational goal, the way seems to be blocked. When this happens the reasons for the block must be determined and an alternate plan developed to address this problem. Such situations demand deter-

Continued, page 6

Extra Weight: A Hero's Reflections

by Jim Rein

The most important skill that I developed in elementary school was the ability to raise my hand in class a fraction of a second after the teacher called on someone else. If the student answered the question correctly, I nodded in agreement, with my best "that's what I was going to say" look. If the student answered incorrectly and I was called on, I asked to go to the bathroom. While I probably convinced my teachers that I had a bladder problem, my low grades suggested I convinced them of little else.

In looking back on those days, I realize that what I really wanted was to have the same experiences and feelings that the other students were having: being able to raise my hand in class because I knew the answer to the question; asking a question based on my knowledge and understanding rather than my confusion. I envied those who actually looked forward to the return of a paper or a test, and dreaded the inevitable question, "What did you get?"

It was early in my elementary school career that I learned the social value of being good in sports. Sports provided an avenue for success in the school environment that was impossible for me in the classroom. For the first time in my life I saw effort produce positive results. In academics, I had found that increased effort did not really produce results. Since at that time the field of learning disabilities was non-existent, I was continually told that my poor performance was a reflection of lack of effort and poor attitude. I remember the frustration of trying to convince teachers that I was trying. Instead, I was convinced I was stupid, a feeling I have, in spite of my achievements, difficulty in dispelling even now. I remember as director of a school, sitting in my office, waiting for someone to come through the door and tell me that the charade was over, and it was time to hire a *real* director.

I realize that I have gone from elementary school to being the director of a school in one sentence. My organizational skills have obviously not improved a great deal over the past thirty-five years. Nathan Smith, a sports medicine specialist at the University of Washington, stated that for elementary school age children, "losing is the biggest emotional threat. They don't have the maturation to deal with it." Dr. Smith was writing about the competitive sports experience, but we, as educators, tend to overlook the winning and losing that takes place in the classroom. We have great empathy for the child who is harshly criticized by his/her coach in front of teammates. Yet, we do not realize that the learning disabled often go through these types of experiences on a daily basis, when they are called on in class, when tests or papers are pased back in class, when homework is asked for or corrected in class, when grades are announced or posted or when a series of verbal instructions is given and expected to be followed.

Learning disabled children tend to develop strategies to deal with their disabilities. I found that as I got older, my success in athletics was not enough to compensate for my failures in the classroom. Since I could not develop techniques to create success, my defense was to associate with others who had similar problems and put down those who were successful. We formed clubs that excluded anyone who did well in class. We tried always to direct conversations to areas that we knew, and made fun of the topics that we did not. It worked, but only for a short time.

Then there was my brother. Sometimes I think that some unknown force decides that if one child is learning disabled, the other should be brilliant. I was luckier than most. Even though Michael was only a grade ahead of me in school, at least he was older and bigger. I did not have to face a younger sibling who was functioning at a higher level. Fortunately, my brother was not an athlete, so I did have an area of success all my own. Michael supported and seemed to enjoy my athletic accomplishments. He tried to help me with my work, although it was difficult for him to understand my inability to understand what he considered simple concepts. We did have some conflicts when he wanted to try and teach me a concept or process, and all I wanted was to be handed the right answer. I remember the chemistry teacher, who'd had Michael the year before, ask me in front of the whole class if I was sure I was Michael Rein's brother. Of course, my brother did have his moments. He was completing his freshman year at Harvard and was home on break, when word came that I had been accepted at Springfield College. A friend of my mother commented how wonderful it was that Springfield and Harvard were so close, to which Michael commented, "Maybe geographically."

I resented being known as a "jock," although I continually contributed to that image through my conversation, dress and emphasis on sports. Most of my classmates were applying to colleges with very competitive academic programs; I was going to Springfield to major in physical education. I took a lot of ribbing about my career choice. I was

Continued, page 6

Lemonade Stands and Fleamarkets

by Robert Whitman

As an estate planner who is the father of a learning disabled child, I have been rather more than sensitive to the fact that corporate fiduciaries (banks and trust companies) tend to view family situations in which there is a child or children with learning disabilities as an area to sell their services. "Don't worry about the financial needs of your learning disabled child," they say, "put your money in trust, and we'll take care of everything." I find this approach to be by and large very counter productive. Although there are circumstances where such action is in the best interest of the family (in cases of severe emotional disability, or alcohol and drug dependence, for instance), I strongly believe in another strategy altogether.

I argue that parents should make every effort to help the learning disabled child to be financially as completely independent as possible—and at the earliest possible age, ideally, *outside* a formal training ground. A wise parent will help to create situations where such skills might be learned. If fear of "making it" in the work-a-day world is dispelled at an early age, then when learning disabled adults enter the job market, it is not an unbearable prospect. Naturally, we need to be sensitive to the fact that different children need different degrees of guidance along these lines; as parents—and as teachers—we need always to be aware that there *are* limits. But, let me tell my story.

When we were informed that our son, Miles, then age six, was learning disabled, my wife and I had to deal with a host of new challenges. Among them was the issue of whether upon reaching adulthood, Miles could handle his own financial affairs. We decided that it was critical to Miles' development that we see him as capable of handling whatever inheritance he might have on his own and that we begin at the earliest possible time to train him to deal effectively with money.

We saw the need for intensive long term training in financial matters. Our start was the LEMONADE STAND. Its advantages were clear:

1. It could be handled independently by Miles.
2. It involved money (5 cents a glass), meaning it required Miles to deal with making change and keeping money safely.
3. It required planning ahead.
4. It involved Miles' accepting the work ethic (it is fun to work).
5. It helped to build confidence.

From the LEMONADE STAND he graduated to the FLEA MARKET business. While Miles never did become the "buyer" of what he sold, he was able, after several years, to become fully responsible for setting up the stand, bargaining with the

Continued, page 6

Jim Rein with N.Y. Jets "Hero" Marty Lyons.

Rein, continued

always being teased that I should wear a sweatsuit to my college interview, and that all I would have to do is arm wrestle the interviewer to be accepted. The fact that I recall these incidents so vividly probably demonstrates that they had a greater effect on me than I let myself and others believe.

In college, I came face to face with two important realizations. I was not the only good soccer player around, and I was not the only student who struggled in the classroom. Motivated by the chance for real academic success, I not only worked harder then most of my friends, but started to develop techniques that seemed to pay off. In reading a text book, I discovered that if I underlined and then memorized, I retained the information long enough to get me through a test. I played the guitar and liked music, so I wrote songs with the "facts" and sang to myself during tests. In my junior year, I was commended by the All-American selection committee in soccer, *and* I made Dean's List. While I played down the latter to my friends, it meant more to me than any athletic award I had ever won.

My success in college allowed me to view my future in a new light. I no longer saw myself as that stupid and lazy boy whose parents were told in a school conference that their son would probably become a taxi driver. I applied, and was accepted to graduate school. After completing my degree, I taught at the university level for eight years, was the principal of an elementary school and director of an elementary/high school complex. I wrote and produced a feature film as well as several songs. In all my ventures, my learning disabilities made success more difficult, but never prevented me from trying.

For the past twelve years, I have been doing what I do best and what gives me the most satisfaction and enjoyment, working with learning disabled children and young adults. As dean of a vocational independence program and founder and director of summer camps for the learning disabled. I have finally found a vocational area where my learning disabilities are an advantage. They allow me a sensitivity toward and identification with both young people and parents. Our collective goal is to help these young people feel better about themselves by recognizing their potential while easing some of the pain of being learning disabled.

I am confident that techniques to help the learning disabled learn will continue to be developed. For the learning disabled and their families, the most important achievement is to come to terms with the disability. One's energy should not go into fighting or avoiding a label, but into demanding service, having expectations for oneself, and to those whose responsiblity it is to teach, to be comfortable in saying as I still do, "I don't understand, explain it to me again."

My high school track coach decided one day that we should complete our workout with a ten pound weight strapped to our backs. I think he was trying to impress us with the impact of carrying extra weight. I found that I had to work harder, could not run as fast, but *could* complete the workout. That single experience may best describe my forty-two years as a learning disabled person. ■

JIM REIN is currently Dean of Vocational Independence Program (VIP) at the New York Institute of Technology. VIP is a two year non-degree program for learning disabled persons emphasizing the development of independent living skills as well as vocational skills and options.

Mr. Rein is also the Executive Director of the Northwood Camps for Children with Learning Disabilities. He was a member of the Churchill School faculty for two years.

Millman, continued

mination, perseverance, flexibility, and creativity to uncover new routes to remove or circumvent the barrier and achieve the goal.

It takes years of experience before a person sees long term vocational plans come to fruition. During those years, a person becomes more adept at changing steps and goals that respond to new skills, interests and developments while continuing to identify a path to vocational achievement.

The school, professional counselors and parents can assist a student in grasping the basics of the vocational planning process but it is, ultimately, the student who plans and pursues his or her own independent vocational course of action. ■

ELLEN PEPPERBERG MILLMAN is presently Assistant Director of Educational Services at Federation Employment and Guidance Service (FEGS), the largest not-for-profit agency of its kind in the country. She administers innovative vocational focused in-school programs for at-risk-of-dropping-out and special education students under funding from the New York City Board of Education and the New York City Youth Bureau. She was awarded a B.A. from Wheaton College, Massachusetts, and an M.A. and M.Ed. from Teachers College, Columbia University. She is a State Certified Guidance Counselor and a Certified Rehabilitation Counselor. She has worked at FEGS 12 years as a Rehabilitation Counselor, Vocational Counselor and Supervisor of Counseling and Assessment.

Whitman, continued

customers, counting the receipts and packing up. The FLEA MARKET business helped Miles to learn to work with and get along with people in a setting where he could be in charge.

Miles' FLEA MARKET experience prepared him for his own checking account at age 13 and his own financial management responsibilities at age 15. By age 16, Miles was encouraged to retain his own stockbroker. Even though small amounts were involved, the important idea was to allow Miles to learn that he was to be responsible for his own affairs and that individuals, such as stockbrokers, were willing to serve him.

We believe that the training, skills, and confidence gained at an early age in dealing with the LEMONADE STAND/FLEA MARKET business greatly helped Miles to master the fundamentals of finance and contributed to his sense of self confidence and his positive self image. ■

ROBERT WHITMAN is Professor of Law at the University of Connecticut Law Scool in Hartford. His son, Miles, went to Hall High School and is presently enrolled as a freshman at the Alternative First Year Program at Northwestern University.

How A Born Again Dyslexic Found Pluslexia

by Delos R. Smith

The key factor for individuals with learning problems is to understand how the difficulties will affect them and how they will be viewed by society. The "different brain" can be a great blessing or a curse. For this article, we will assume that the mechanical weaknesses of language were corrected at an early age with minimum trauma, admittedly quite a leap in faith. Even with perfect remediation, the child and the adult can still be faced with many challenges, because the weakness of language often indicates brain processes that deviate from the "norm." Since these differences can be all pervasive, acceptance of such differences is an essential factor for parents and educators of the learning disabled and, indeed, for the learning disabled person him/her self. The person must become, in a sense, a "born again" dyslexic. Let me explain.

I am the severest in a family of dyslexics, but, I must add that in the perverse world of dyslexia, being in the extreme can be an advantage. Because I stood out, I was the only one in my family that was remediated as a child. My speech never developed properly and remained garbled and confused until my remediation. I wrote in mirror images, and reading was virtually impossible. My eyesight was poor and my rhythm was unusual and uniquely mine. Color differences were evident, too. This article is not about my superb remediation with Dr. and Mrs. Samuel Orton and Katrina deHirsch but about how I adjusted to my world years later.

I was remediated throughout the 3rd grade, and by the following year, my speech, reading and writing abilities were on a par with or above my peers. From the point of view of my teachers and doctors, remediation was a success and there was no need for further examination of my problem. The proof was their charts—the lines and wiggles in their charts was evidence that I was now ready for a standard education, that I would now fit the role of a nice "normal" fourth grader. But a normal boy I did not become nor did I become a normal adult.

I was totally mystified by my differences, wanting so to be like everyone else, but my attempts to conform did not have the desired results. I was marching to a different drummer, and while I was successful in some areas of my life, and that drummer and I made a wonderful team, I was fundamentally out of step with society. Sometime in my mid-twenties, I decided that I would live my adult life much more happily if I gave up the expectations of "fitting in," and from that time I have enjoyed life more fully. But the period of puzzlement and lack of *total* acceptance of my learning differences lasted to age forty-one.

At age thirty-five, I made another conscious decision—to challenge what I perceived as a total lack of ability in all aspects of music. For the next seven years, I studied piano with great perseverance; progress was painfully slow. I was driven by the sense that the answer to my problems with music and rhythm would be a key to understanding my learning differences. I discovered a series of musical reversals that paralleled my reversing the English language as a youngster. I discovered that as an adult, I was just as mirrored as the day I was born. I had successfully compensated without fully understanding the causes and manifestations of my dyslexic condition.

On a fateful December day in 1976 at the age of forty-one, I decided to return to my natural way of writing. From my point of view, of course, I write forward and the rest of society writes backwards. I decided to be neither negative nor compulsive. I just wanted to be proud of being a "mirror." I was now ready to use my learning differences as an advantage. Dyslexia would soon become pluslexia for me.

How do you turn an obvious weakness into a strength? One way is to understand your society and how that society attempts to teach you. You must understand how societies arrive at decisions in the field of education. There is nothing sinister about it; the choices will, however, be made with the vast majority in mind. It is thus essential that resources for the education of youngsters who fall into the educational minority are adequate. It has been difficult for the system to admit that this minority exists, although awareness of the reality of learning disabilities is on the increase. The system must attend creatively to its needs.

Another special problem that needs to be considered is that professionals in the field of learning disabilities come from the same system that produced this gap between education for the "majority" and "minority." Therefore, remediators, for example, must do the same exercises that dyslexics must do so that they can develop a special understanding of the role of the learning different in our society. Acceptance of the learning different is the key. Everyone has strengths and weaknesses, but the strengths and weaknesses of the learning different can be very different from the norm. Everyone has a series of dilemmas that must be resolved, but, for the dyslexic the dilemmas will be different.

I would like to end this article with a few personal messages.

To the dyslexic child: You will probably ask over and over again, why can't I learn like everyone else? Am I dumb? I want so much to be like everyone else. Will I be able to succeed as an adult? It is so easy to be down on yourself, but work hard at being easy with yourself. You are not dumb or a bad kid because you learn differently. Depersonalize your weaknesses—personalization is a great danger because it leads to self pity. Learning about your brain and why it's special and different from most brains is another essential exercise.

You may have to work a little harder to develop your language skills. You will really have to *want* to do well. But developing desire and perseverance in themselves are skills that will serve you well later in life.

To the dyslexic adult: Learn how our society operates. Everyone should do so, but for the dyslexic, understanding is the key to survival. And then master the language. You can do it. It just takes practice, practice and more practice.

To the parent: Enjoy your special child. If you insist that your child fit the traditional mold, you certainly have problems. But, if you can learn to relax and accept your special child, there could be unexpected rewards for you.

To the professional: If you really want to help the learning disabled, you have to overcome your educational prejudices and the rigidities that have crept into your style. Only a careful re-evaluation will help to discover blocks that prevent you from truly communicating with your student. The effort, though, is worth it. We are a lot of fun. ■

DELOS R. SMITH has been a Public Finance Economist specializing in the U.S. Federal Budget for the Conference Board since 1959. Mr. Smith is a member of the Board of Directors of the Orton Dyslexia Society; Financial Adviser of the Branch Council of the Orton Dyslexia Society; Treasurer of the New York Branch of the Orton Dyslexia Society; member of the Board of Directors of the Intersensory Learning Center of Great Neck and Huntington, L.I.; and, a participant in the "Project Hero" program at the Churchill School.

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Central Park Humanities Curriculum

The Churchill School and Center for Learning Disabilities has recently published a new teacher's manual, "Central Park." Using Central Park as its focus, the manual highlights the limitless learning opportunities urban parks have to offer.

The Central Park manual is designed for teachers of children with learning disabilities, but is relevant to all teachers interested in implementing an integrated curriculum that develops understanding in the natural sciences and social studies along with reading, writing and language skills. The manual guides teachers in making a coherent, expanded urban park study possible and allows them to tailor their program to the needs and interests of each of their students. The curriculum draws on the widest possible variety of models of learning and expression.

The Churchill School's *Central Park* manual is a unique effort to create a curriculum for students that allows for specific skill development by concentrating on experience, observation and thinking. The park study enables students to become true "experts" in a chosen subject, to make generalizations and to practice much-needed skills.

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Dear Reader:

Due to the positive response to our "Heroes" issue of October, 1984, we have been encouraged to focus again in this issue on the topic of how people with learning disabilities have accepted and dealt with problems related to their learning differences. An artist, an educator, an economist, and the parent of a young man presently in college, tell their stories.

In addition, we are pleased to present the insights and guidance of a professional vocational counselor. We again invite your response to this issue as well as areas which you would like to see addressed in future issues of the *Forum*.

Harry S. Valentine III

Harry Valentine
Founder
The Churchill School

LIVE HERO
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3